# Administration and Coordination of the ED for the Care of Children

- Physician Champion for Pediatric Emergency
   Care The pediatric physician champion is a
   specialist in emergency medicine or pediatric
   emergency medicine. If a Physician Champion in
   these specialties is not available, a specialist in
   pediatrics or family medicine, appointed by the
   ED medical director, who through training,
   clinical experience, or focused continuing
   medical education (4 hours of Pediatric CME
   annually) demonstrates competence in the care
   of children in emergency settings, including
   resuscitation, may act as Physician Champion. Up
   to two facilities may use the same champion
   provided they participate in staffing at both
   facilities.
- Nursing Coordinator for Pediatric Emergency
   Care The pediatric nurse coordinator is a
   registered nurse, appointed by the ED nursing
   director/manager, who possesses special
   interest knowledge, and skill in the emergency
   care of children. The coordinator must be PALS
   and ENPC certified. They must obtain at least 4
   hours of CEUs annually and be engaged in
   regional activities.
- Hospital administration, Physician champion and nursing coordinator are responsible for ensuring facility meets all pediatric readiness criteria.

## **Guidelines for QI/PI in the ED**

- The QI/PI plan shall include pediatric specific indicators.
- The pediatric patient care-review process is integrated into the ED QI/PI plan.
   Components of the process interface with out-of-hospital, ED, trauma, inpatient pediatric, pediatric critical care, and hospitalwide QI or PI activities (if applicable).
- Primary Review between Physician Champion and Nursing Coordinator. Should be elevated as needed and outlined by facility quality plan.
- Required Indicators (< 18 years of age)</li>
  - o Deaths
  - o Pediatric Medication Errors
  - Transfer Out
  - Any critical care event, code, or arrest
  - Children <2 years of age with injuries</li>
  - Non-accidental Trauma
  - Any hospital reviewed case
  - Imaging Misreads
  - Additional indicators as needed

## Physicians, Nurses and Other Healthcare Providers Who Staff the ED

- Physicians who staff the ED have the necessary skills, knowledge, and training in the emergency evaluation and treatment of children of all ages who may be brought to the ED, consistent with the services offered by the hospital. Non EM/PEM boarded physicians must be current in PALS.
- Nurses and other ED health care providers (to include: RN, RT, Rad Tech, EMT, Paramedics, Nurse Techs, and Advanced Practitioners) have the necessary skill, knowledge, and training in providing emergency care to children of all ages who may be brought to the ED, consistent with the services offered by the hospital.
  - RN: PALS required within 12 months of hire and ENPC desired
  - o RT and PharmD: PALS desired
- Baseline and periodic competency evaluations completed for all clinical staff, including physicians, are age specific and include

# **Guidelines for Improving Patient Safety**

The delivery of pediatric care should reflect an awareness of unique pediatric patient safety concerns and are included in the following policies and procedures.

- Children must be weighed only in kilograms and recorded in a prominent place in the medical record.
- For children who are not weighed, a standard method for estimating weight in kg is used.
- Infants and children must have temperature, heart rate, and respiratory rate captured in the medical record.
- Blood pressure and pulse oximetry monitoring are available for children of all ages, on the basis of illness and injury severity.
- A process for identifying age-specific abnormal VS and notifying the physician of these, if present.

evaluation of skills related to neonates, infants, children, adolescents, and children with special care needs. (Competencies are determined by each institution's medical and nursing staff privileges policy.)

- Processes in place for safe medication storage, prescribing, and delivery that includes pre-calculated dosing guidelines for children of all ages.
- Pediatric emergency services are culturally and linguistically appropriate.

# **Guidelines for Improving Pediatric Patient Safety, Cont.**

- Infection-control practices, including hand hygiene and use of personal protective equipment are implemented and monitored.
- ED environment is safe for children and supports patient-and-family-centered care.
- Patient identification policies meet accreditation standards.
- Policies for the timely reporting and evaluation of patient safety events, medical errors, and unanticipated outcomes are implemented and monitored.

# Guidelines for ED Policies, Procedures, and Protocols

Policies, procedures, and protocols for the emergency care of children should be developed and implemented in the areas listed below. The following policies may be integrated into overall ED policies, but must specifically address pediatric issues:

- Illness and Injury triage with standards for timeliness of reassessment.
- Pediatric patient assessment and reassessment.
- Documentation of pediatric vital signs and actions to be taken for abnormal vital signs.
- Immunization assessment and management of the under-immunized patient.
- Sedation and analgesia, including medical imaging.
- Consent, including when parent or legal guardian is not immediately available.
- Social and mental health issue screening.
- Physical or Chemical restraint of patients.
- Child maltreatment and domestic violence reporting criteria, requirements, and processes.
- Death of the child in the ED.
- Do not resuscitate (DNR) orders.
- Family-centered care to include; Family involvement in patient decision-making and medication safety processes; family presence during all aspects of emergency care; patient,

# Guidelines for ED Policies, Procedures, and Protocols, Cont.

- Communication with the patient's medical home or primary care provider.
- Medical imaging, specifically policies that address pediatric age- or weight-based appropriate dosing for studies that impart radiation consistent with ALARA (as low as reasonably achievable) principles.
- Inter-facility transfer plan.
- Pediatric pain assessments with developmentally appropriate scale.
- Administration of blood products in pediatric patients.

## Policies, Procedures, and Protocols for All-Hazard Disaster Preparedness

Policies, procedures, and protocols should also be developed and implemented for all-hazard disaster-preparedness. The plan should address the following preparedness issues:

- Availability of appropriate medications, vaccines, equipment, and trained providers for disaster situations involving children.
- Pediatric surge capacity for injured and noninjured children.
- Decontamination, isolation, and quarantine of families and children.
- Minimization of parent-child separation (to include pediatric patient tracking and timely reunification of separated children with their families).
- Access or referral to specific medical and mental health therapies, and social services for children.
- Disaster exercises which include a pediatric mass casualty incident at least every two years to include nonverbal and nonambulatory children.
- Care of children with special health care needs.
- Evacuation of pediatric units and pediatric subspecialty units (if applicable).

family, and caregiver education; discharge planning and instruction; and bereavement counseling.

## **Guidelines for ED Support Services**

Radiology capability must meet the needs of the children in the community served. Specifically:

- An established process for referring children to appropriate facilities for radiological procedures that exceed the capability of the hospital.
- An established process for timely review, interpretation, and reporting of medical imaging by a qualified radiologist.

Laboratory capability must meet the needs of the children in the community served, including techniques for small sample sizes. Specifically:

 An established process for referring children or their specimens to appropriate facilities for laboratory studies that exceed the capability of the hospital.

## Guidelines for Equipment, Supplies, and Medications for the Care of Pediatric Patients in the ED

- Pediatric equipment, supplies, and medications are appropriate for children of all ages and sizes (see list below), and are easily accessible, clearly labeled, and logically organized.
- ED staff is educated on the location of all items.
- Daily method in place to verify the proper location and function of equipment and supplies.
- Medication chart, length-based tape, medical software, or other systems is readily available to ensure proper sizing of resuscitation equipment and proper dosing of medications.

### **Medications**

- Atropine
- Adenosine
- amiodarone
- Antiemetic agents
- Calcium chloride
- Dextrose (D10W, D50W)
- Epinephrine (1:1,000; 1:10,000 solutions)
- Lidocaine
- Magnesium sulfate
- Naloxone hydrochloride
- Sodium bicarbonate (4.2%, 8.4%)
- Topical, oral, and parenteral analgesics
- Antimicrobial agents (parenteral and oral)
- Anticonvulsant medications
- Antidotes (common antidotes should be accessible to the ED)
- Antipyretic drugs
- Bronchodilators
- Corticosteroids
- Inotropic agents
- Neuromuscular blockers
- Sedatives
- Vaccines

## **Equipment/Supplies: General Equipment**

- Patient warming method
- Intravenous blood/fluid warmer
- Weight scale locked in kilograms (not pounds)
- Oral medication syringe
- Tool or chart that incorporates weight (in kg) and length to determine equipment size and correct drug dosing
- Age appropriate pain scale-assessment tools

### **Equipment/Supplies: Monitoring Equipment**

Blood pressure cuffs:

- Neonatal
- Infant
- Child
- Adult-arm
- Adult-thigh
- Doppler ultrasonography devices
- Electrocardiography monitor/defibrillator with pediatric and adult capabilities including pads/paddles
- hypothermia thermometer

Vasopressor agents	<ul> <li>Pulse oximetry with pediatric and adult probes</li> <li>Continuous end-tidal CO2 monitoring device</li> </ul>
Equipment/Supplies: Vascular Access	Equipment/Supplies: Respiratory
Arm boards	Endotracheal tubes
<ul><li>Infant</li></ul>	Uncuffed 2.5mm
<ul> <li>Child</li> </ul>	Uncuffed 3.0mm
<ul> <li>Adult</li> </ul>	Cuffed or uncuffed 3.5mm
	Cuffed or uncuffed 4.0mm
Catheter-over-the-needle-device	Cuffed or uncuffed 4.5mm
• 14 gauge	Cuffed or uncuffed 5.0mm
• 16 gauge	Cuffed or uncuffed 5.5mm
• 18 gauge	Cuffed 6.0mm
• 20 gauge	Cuffed 6.5mm
• 22 gauge	Cuffed 7.0mm
• 24 gauge	Cuffed 7.5mm
	Cuffed 8.0mm
Intraosseous needles or device	
• 15 mm	Feeding tubes
• 25 mm	• 5F
• 45 mm	• 8F
<ul> <li>IV administration sets with calibrated</li> </ul>	
chambers and extension tubing and/or	Laryngoscope blades
infusion devices with ability to regulate	Straight: 0
rate and volume of infusate	Straight: 1
	Straight: 2
Central venous catheters	Straight: 3
• 4.0F	Straight: 4
• 5.0F	Curved: 1
• 6.0F	• Curved: 2
• 7.0F	• Curved: 3
Intravenous solutions	• Curved: 4
Normal saline	ILryngoscope handle
Dextrose 5% in normal saline	Nanill foreign
Dextrose 5% in normal saline     Dextrose 10% in water	Magill forceps
DEATION III Water	Pediatric     Adult
	Adult
	Nasopharyngeal airways
	Infant
	• Child
	Gillia

• Adult

#### **Equipment/Supplies: Fracture-Management Devices** Oropharyngeal airways Infant **Extremity splints** Child Femur splints, pediatric sizes Adult Femur splints, adult sizes Spine-stabilization devices appropriate for children Stylets for endotracheal tubes of all ages Pediatric Adult ETT introducer CO2 colorimetric detector Pediatric Adult **Equipment/Supplies: Respiratory, Cont. Equipment/Supplies: Respiratory, Cont.** Suction catheters Nasogastric tubes Infant Infant Child Child Adult Adult Rigid suction tip Blind insertion airway device Bag-mask device, self-inflating Infant Child Pediatric: 750ml Adult: 1000ml Adult Large adult Masks to fit bag-mask device adaptor Neonatal Infant Child Adult **Equipment/Supplies: Specialized Pediatric Trays or Kits** Lumbar puncture tray (including infant/ Clear oxygen masks Pediatric 22 gauge and adult 18-21 gauge Standard infant needles Standard child Supplies/kit for patients with difficult airway Standard adult Tube thoracostomy tray Nonrebreather child Nonrebreather adult chest tubes: Infant Nasal cannulas Child Infant Adult Child Newborn delivery kit, including equipment Adult for resuscitation of an infant (umbilical clamp, scissors, **Nebulizer Masks** bulb syringe, and towel) Pediatric Adult